

13. UP-STREAM MIGRATION OF ELVERS OF *ANGUILLA NEBULOSA* (= *BENGALENSIS*) OVER FIRST ANICUT OF THE RIVER GODAVARI¹

(With one plate)

During investigations on the freshwater prawn fishery in the river Godavari the author came across the interesting phenomenon of the up-stream run of young elvers of *Anguilla nebulosa* (= *bengalensis*) over the first anicut at Dowleishwaram, situated 80 km. from the sea.

On 26 August 1960, shortly after dusk, small elvers of *A. nebulosa* were noticed negotiating the anicut by slowly moving up-stream along portions of the sloping cement pavement over which the current was sluggish; the movement extended to adjoining areas which were kept moist by spray from the stream. Subsequent regular observation showed that this run of elvers continued throughout the period of overflow of the water over the anicut. It ceased with the stoppage of the overflow towards the end of February 1961. The up-stream migration of the elvers started again in June 1961, when the water once more began to overflow. During the non-flood period, when the shutters of the anicut were raised, the elvers were observed to move vertically up the iron shutters, particularly between two shutters where there was slight leakage.

The anicut at Dowleishwaram covers the entire breadth of the river, 6.4 km., and consists of four sections with islands in between. The shutters, about one metre in height, fall automatically during heavy flood and allow a continuous flow of water, often submerging the entire anicut and maintaining the same water-level on both sides. The run of the elvers was recorded on all edges of the anicut adjoining land.

In all, 452 elvers were collected and measured. The sizes ranged from 48 to 58 mm., the size frequency distribution showing a unimodal curve with a well-defined mode at 53 mm. Nearly 90% of the elvers were between 51 and 55 mm. in length. Microscopic examination of the skin and its scrapings showed no trace of scales on any part of the body.

Rahimullah *et al.* (1944) recorded 152 mm. long elvers of *A. nebulosa* from Nizamsagar Dam, higher up the Godavari River, about 725 km. from the sea. Presuming it to be impossible that

¹ Communicated by the Director, Central Inland Fisheries Research Institute Barrackpore, W. Bengal.



Elvers of *Anguilla nebulosa* (= *bengalensis*) moving up-stream over sloping cement pavement of R. Godavari at Dowleishwaram.

